ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

REMEDIAL ACTION COMPLETION CERTIFICATION

StID 3799 - 1825 Park Street, Alameda, CA

January 10, 1997 corrected Date 04/15/05

Mr. C. Bjarnson
Estate of Bertha Keizer
P.O. Box 1166
Jacksonville, OR 97530

Mr. Len Goode
Ron Goode Toyota
1825 Park Street
Alameda, CA 94501

Dear Messrs. Bjarnson and Goode:

This letter confirms the completion of site investigation and remedial action for the two former underground storage tanks (1-500 gallon gasoline and 1-300 gallon waste oil tank) removed from the above site on December 27, 1990. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tanks are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground tank release is required.

This notice is issued pursuant to a regulation contained in Title 23, Section 2721(e) of the California Code of Regulations.

Please contact our office if you have any questions regarding this matter.

Very truly yours,

Mee Ling Tung, Director

cc: Chief, Division of Environmental Protection
Kevin Graves, RWQCB
Lori Casias, SWRCB (with attachment)
Cheryl Gordon, UST Cleanup Fund
files (rgoode1.6) ECHO

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files (rgoode1.6)

01-1258

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION Date: September 13, 1996

Agency name: **Alameda County-HazMat** Address: **1131 Harbor Bay Pkwy**
City/State/Zip: **Alameda, CA 94502** Phone: **(510) 567-6700**
Responsible staff person: **Eva Chu** Title: **Hazardous Materials Spec.**

II. CASE INFORMATION

Site facility name: **Ron Goode Toyota**
Site facility address: **1825 Park Street, Alameda, CA 94501**
RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **3799**
URF filing date: **8/7/96** SWEEPS No: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
1. C. Bjarnson & B. Green Estate of Bertha Keizer	P.O. Box 1166 Jacksonville, OR 97530	
2. Len Goode Ron Goode Toyota	1825 Park Street Alameda, CA 94501	510/522-6400

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	500	Gasoline	Removed	12/27/90
2	300	Waste Oil	Removed	"

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: **Leaking waste oil tank**
Site characterization complete? **YES**
Date approved by oversight agency: **7/31/96**
Monitoring Wells installed? **Yes** Number: **4**
Proper screened interval? **Yes**
Highest GW depth below ground surface: **2.16'** Lowest depth: **4.72' in MW-4**
Flow direction: **NNW to NNE**
Most sensitive current use: **Commercial**
Are drinking water wells affected? **No** Aquifer name: **Merritt Sand**
Is surface water affected? **No** Nearest affected SW name: **NA**
Off-site beneficial use impacts (addresses/locations): **NA**

Report(s) on file? **YES** Where is report(s) filed? **Alameda County**
1131 Harbor Bay Pkwy
Alameda, CA 94502

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment or Disposal w/destination)	Date
Tank	2 USTs	Erickson, in Richmond	12/27/90
Piping			
Rinsate	350 gallons	Refinery Services, Patterson	12/26/90

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm) Before[1]	Soil (ppm) After	Water (ppb) Before[3]	Water (ppb) After[4]
TPH (Gas)	5,300	5,300	6,000,000	180
TPH (Diesel)	780	780	NA	ND
Benzene	13	13	21,000	4.7
Toluene	65	65	420,000	1.4
Ethylbenzene	79	79	110,000	2.0
Xylenes	490	490	440,000	13.0
Oil & Grease	2,100	2,100	4,000	ND
Heavy metals **see Table 8**				
Other **Naphthalene**	3.0[2]			
2 Methylnaphthalene	3.6[2]			
1,2-Dichlorethane	ND[2]		5.7	0.8

NOTE:
1 soil collected from beneath w.o. tank at ~5' bg during tank removal
2 soil from boring EB-27 at ~4' bg, near w.o. tank
3 grab groundwater sample S-8 along Clement Street
4 water from groundwater monitoring wells

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? **Undetermined**
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? **Undetermined**
Does corrective action protect public health for current land use? **YES**
Site management requirements: **A site safety plan should be prepared to protect construction workers if excavation and/or construction is proposed in the area where residual soil contamination exists.**

Should corrective action be reviewed if land use changes? **YES**
Monitoring wells Decommissioned: **No, pending site closure**
Number Decommissioned: **0** Number Retained: **4**
List enforcement actions taken: **NOV issued 12/4/95**

List enforcement actions rescinded:

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: **Eva Chu** Title: **Haz Mat Specialist**

Signature: [signature] Date: 9/20/96

Reviewed by

Name: **Juliet Shin** Title: **Sr. Haz Mat Specialist**

Signature: [signature] Date: 9/16/96

Name: **Thomas Peacock** Title: **Supervisor**

Signature: [signature] Date: 9-19-96

VI. RWQCB NOTIFICATION

Date Submitted to RB: 9/20/96 RB Response: Approved

RWQCB Staff Name: **Kevin Graves** Title: **AWRCE**

Signature: [signature] Date: 10-10-96

VII. ADDITIONAL COMMENTS, DATA, ETC.

The site is currently an automobile dealership and showroom. (See Fig 1). Two USTs (1-300 gallon waste oil and 1-500 gallon gasoline) were removed on December 27, 1990. Holes (1/4" to 3/4" in diameter) were noted near the bottom of the waste oil tank. No holes were noted in the gasoline tank, but the tar wrap was partially dissolved near the fill end. Two soil samples (S1 and S2) were collected from native soil beneath the waste oil tank at 5' bg and two sidewall samples (S3 & S4) were collected from the sidewalls at 4.5' below ground surface (bgs). The soil samples were analyzed for total oil and grease (TOG), total petroleum hydrocarbons as diesel (TPHd), TPHg (as gasoline), and benzene, toluene, ethylbenzene, and xylenes (BTEX). Elevated levels of all constituents were identified. (See Fig 2, Table 1)

Two soil samples (S5 and S6) were also collected from native soil beneath the gasoline tank at ~5' bg and analyzed for TPHg, BTEX, and total lead. Trace levels of hydrocarbons and total lead were identified. Two other sidewall samples (S7 and S8) which were also collected from the gasoline pit at ~5' bgs exhibited an obvious odor, but these samples were not analyzed by the laboratory. (See Fig 2, Table 1)

In March and April 1991, 64 hand-augered borings (EB-1 through EB-64) were drilled on the property. Forty-one soil samples were collected of which 14 were selected and submitted for laboratory analysis based upon location and

observed odor and/or discoloration. Only soil from EB-27 (within 8' of former waste oil excavation) exhibited elevated levels of TPHg, TPHd, and BTEX, and low concentrations of naphthalene and 2 Methylnaphthalene. (See Figs 3 and 4, Tables 2 through 8)

In November 1991 three borings, B1 through B3, were drilled and converted to groundwater monitoring wells MW-1 through MW-3, respectively. A noticeable hydrocarbon odor was identifed in boring B3. Soil was collected from 5.5' bgs in each boring. Only soil from boring B3 contained hydrocarbons (250 ppm TPHg, 17 ppm TOG, and 0.330, 3.7, 4.0, and 24 ppm BTEX, respectively). TPHg, TPHd, and BTEX were not identified in groundwater. However, up to 4.0 ppm TOG was identifed in well MW-1. (See Fig 5, Tables 9 and 10)

In April 1993 well MW-4 was installed within 12' and downgradient of the former waste oil tank and 17 soil borings (S-1 through S-17) were drilled around the site. One soil and one groundwater sample were collected from each boring. Elevated levels of petroleum hydrocarbons (>100ppm TPHg) were identified in soil from borings adjacent to and downgradient of the former waste oil tank (MW-4, S17); from borings along the sewer line running along the northwest wall of the showroom (S5, S6, S10, and S11); and, from borings S8 and S9 along Clement Avenue. Elevated levels of TPHg and benzene were also noted in water samples collected from the same above borings (except MW-4 which was non-detect). In addition, soil and water samples collected from well MW-4 contained low levels of chlorinated hydrocarbons. (See Figs 6 and 7, Tables 11 and 12)

In February 1996 additional exploratory soil borings were advanced to verify the source of elevated levels of hydrocarbons identified from previous investigations. Ten borings (B1 through B10) were drilled along Park Street and Clement Avenue and along the primary sewer line entering the property. Results of soil and grab groundwater samples collected suggest there is not an offsite source along Park Street; hydrocarbon-impacted water exists predominantly off-site along Clement Avenue and in the vicinity of the sewer line entering the property; and, the majority of contamination to groundwater is not due to the former USTs. (See Fig 8, Tables 13 and 14)

Residual soil contamination (up to 5,300 ppm TPHg and 13 ppm benzene) is found at 5.0' bgs and has extented at least 30' from, and downgradient of, the former waste oil UST (where benzene concentrations in soil decreased to 0.44 ppm). Contaminated soil is currently under the parking lot which is covered with asphalt. Under current land use, the only potential exposure pathway for hydrocarbon contaminants to affect human health is via soil volatilization to outdoor air. The human cancer risk from the residual benzene in soil does not exceed 1E-04 for a commercial scenario, based on ASTM's Tier 1 Risk-Based Screening Level Look-Up Table.

Wells MW-1 through MW-3 have been sampled nine times, and MW-4 six times. Maximum concentrations of TPHg and BTEX were identifed from well MW-3 at 190 ppb TPHg, and 7.9, 1.5, 2.6, and 13 ppb BTEX, respectively. "Grab" groundwater samples identified up to 3,400 ppb TPHg and 20 ppb benzene from

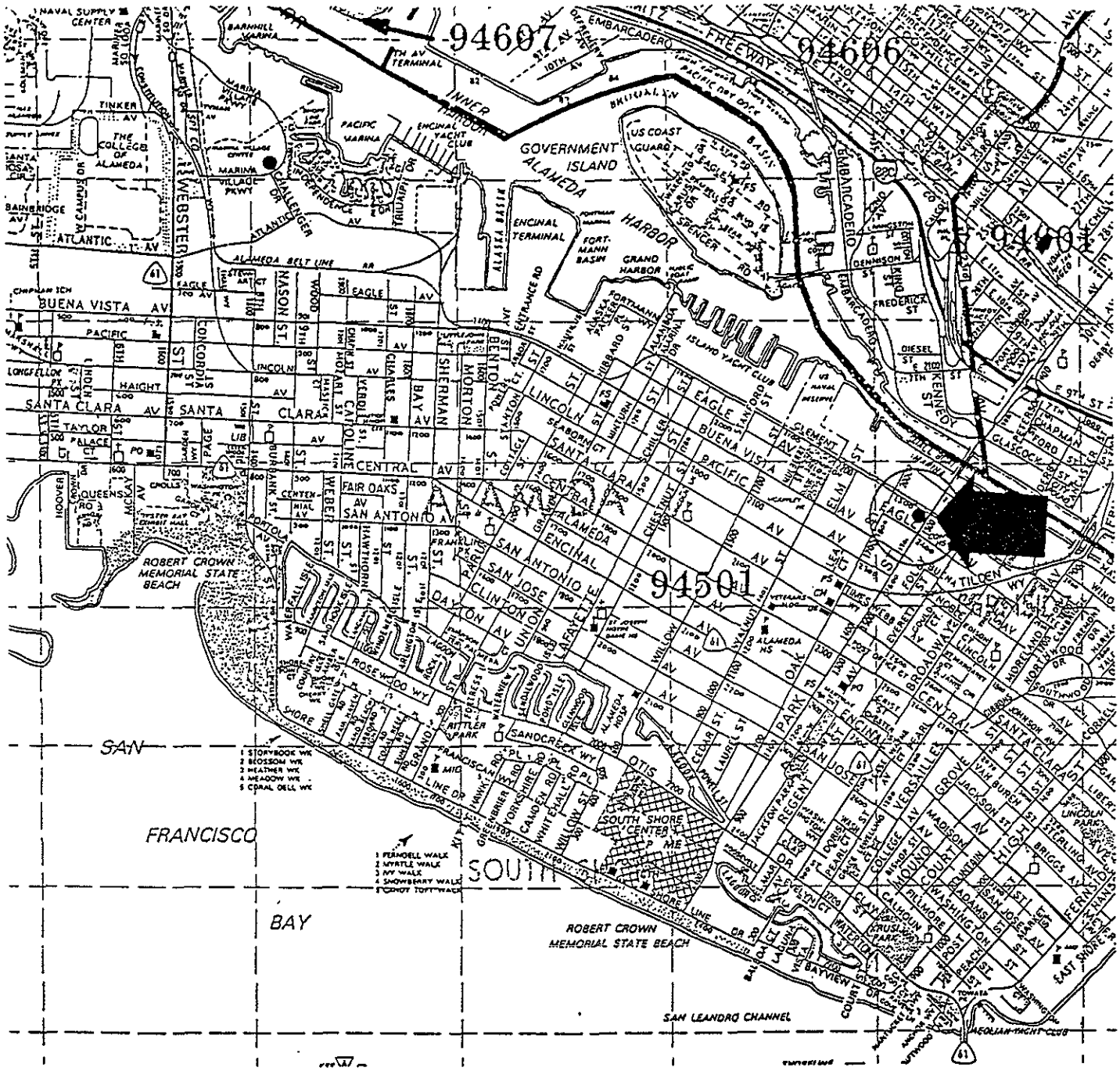
boring S-17, approximately 30' downgradient of the former waste oil excavation. TPHd has not been detected in any of the wells. Up to 5.7 ppb 1,2 DCA (dichloroethane) have been identified in well MW-4. (See Table 15). However, the levels of 1,2-DCA appear to be decreasing. In the most recent sampling event, in December 1995, only 0.8 ppb 1,2-DCA was identified in well MW-4. The DCA and benzene levels are above California MCLs (0.5ppb) but should pose no human health risk because the shallow aquifer is not a current source for drinking water.

It appears the fuel release from the two former USTs did not significantly impact groundwater quality beneath the site. Additional subsurface investigations and/or groundwater monitoring are not warranted. However, a site safety plan should be prepared to protect construction workers if excavation and/or construction is proposed in the parking area.

In summary, case closure is recommended because:

- the leak has been stopped;
- the site has been adequately characterized;
- the dissolved hydrocarbon plume is not migrating;
- no water wells, deeper drinking water aquifers, surface water, or other sensitive receptors are likely to be impacted; and,
- the site does not pose a risk to human health based on values from ASTM's Tier 1 Risk-Based Screening Level Look-Up Table.

rgoode1.4



SOURCE: THOMAS BROTHERS GUIDE

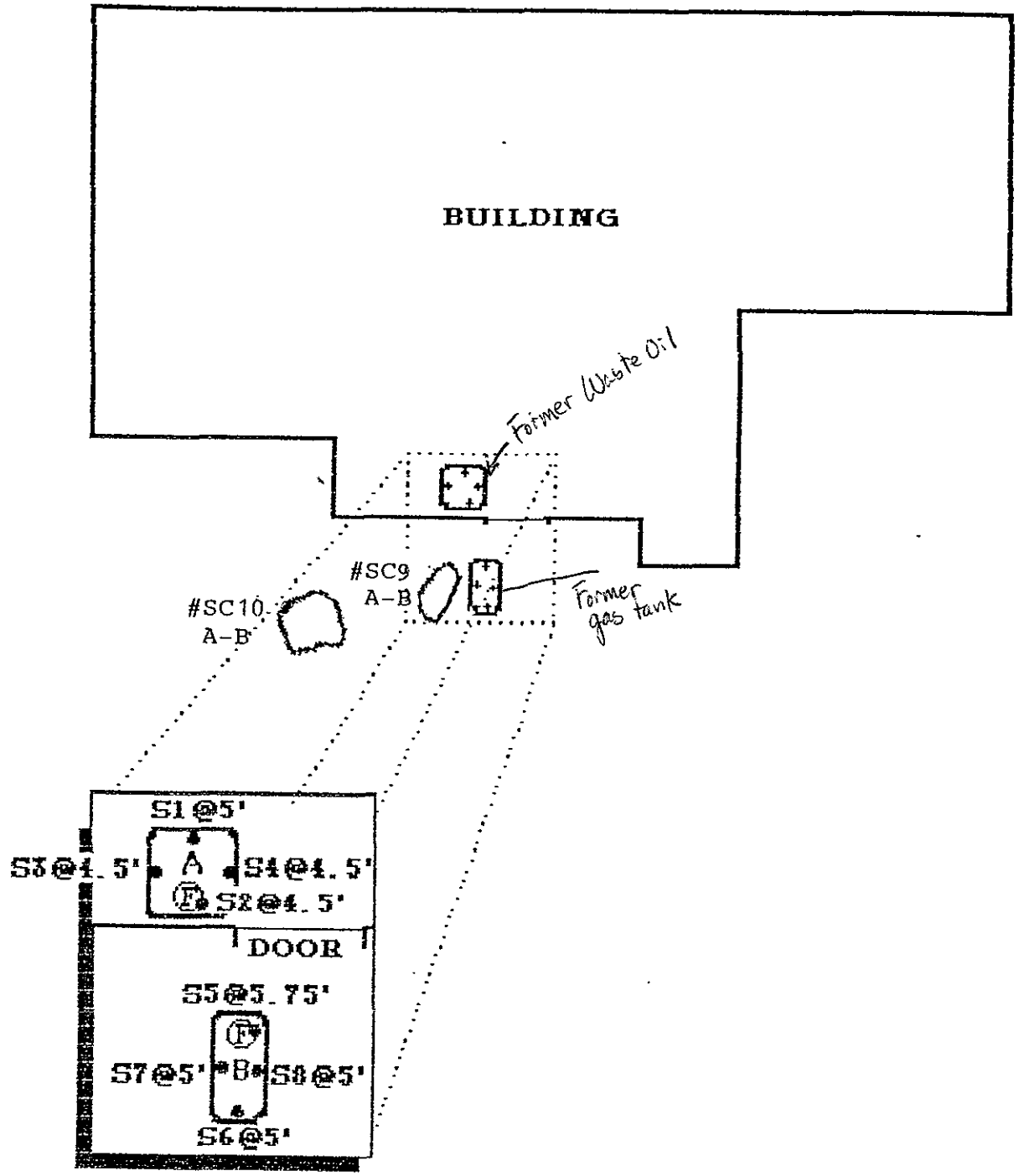
Title:	Vicinity Map 1825 Park Street Alameda, California		
Figure Number:	1.0	Scale:	1" = 1/4 mi
Drawn By:	JVC	Date:	2/22/96
Project Number:	95-6089-1.3		

ACC Environmental Consultants
7977 Capwell Drive, Suite 100
Oakland, California 94621
(510) 638-8400 Fax: (510) 638-8404

N
W E
S

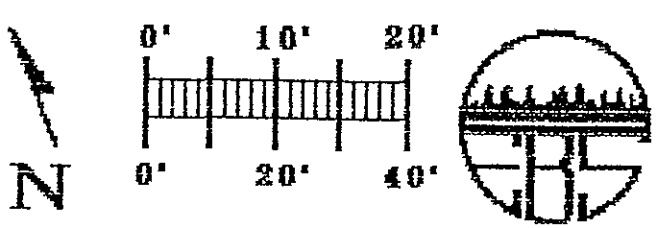
FIGURE 2

CLEMENT AVENUE

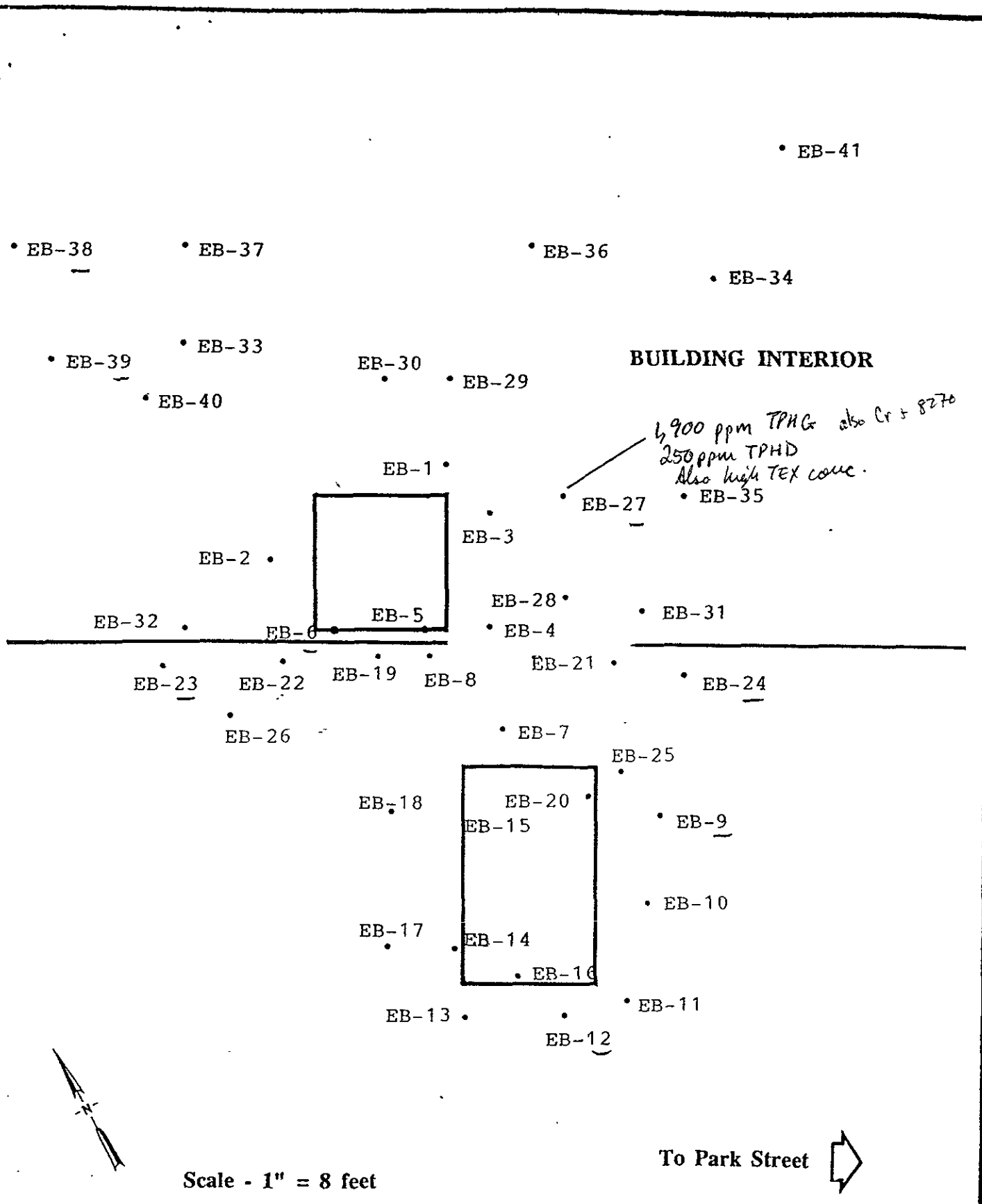


PARK STREET

Fig 2

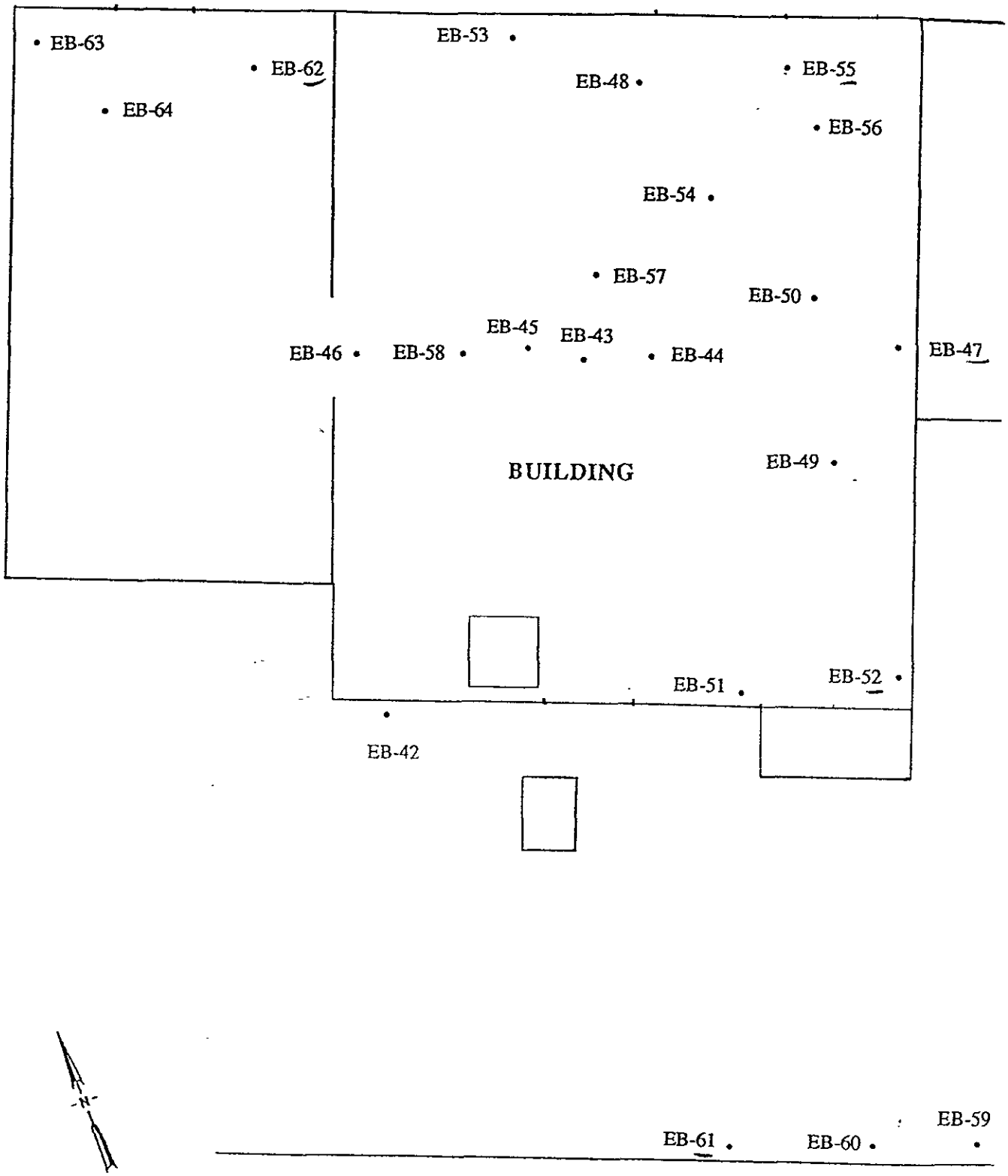


ZACCOR CORP.@
BURR PROPERTY
1825 PARK STREET
ALAMEDA, CALIFORNIA
TANK PULL 12/27/90



ENVIRONMENTAL BIO-SYSTEMS, INC. Innovative Solutions for a Better Environment 30028 Industrial Pkwy., S.W. Suite C Hayward, CA 94544	DATE: MARCH 1991 DRAWN BY: BDM APPROV'D: TMB	**SITE DIAGRAM B** FIG 3 KEIZER ESTATE 1825 PARK STREET ALAMEDA, CALIFORNIA

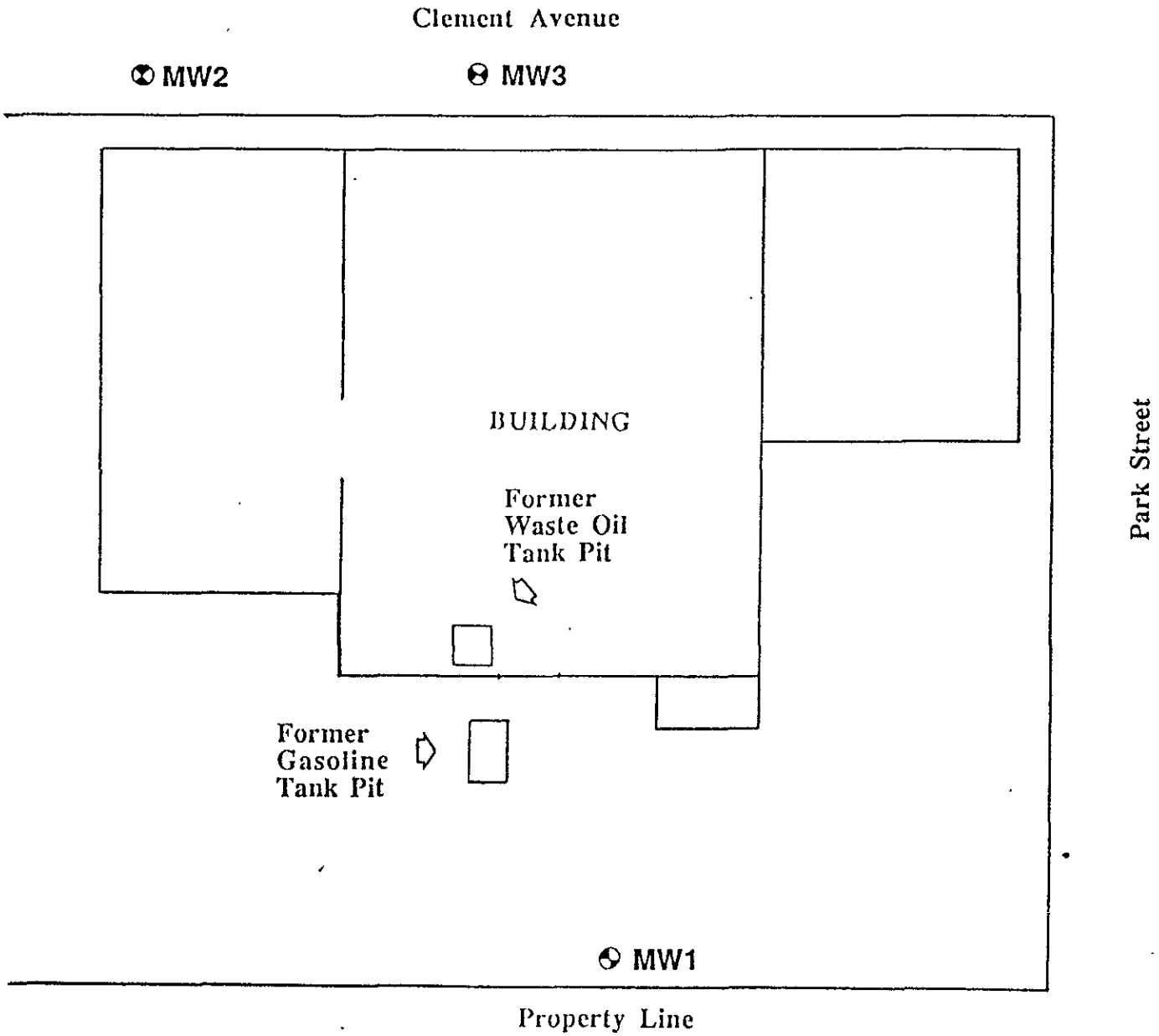
FIGURE 3



Scale - 1" = 20 feet

ENVIRONMENTAL BIO-SYSTEMS, INC. Innovative Solutions for a Better Environment 30028 Industrial Pkwy., S.W. Suite C Hayward, CA 94544	DATE: MARCH 1991 DRAWN BY: BDM APPROV'D: TMB	SITE DIAGRAM C FIG 4 KEIZER ESTATE 1825 PARK STREET ALAMEDA, CALIFORNIA

FIGURE 4



EXPLANATION

MW3 ⊖ **- Monitoring Well**

N

Scale - 1" = 30 feet

ENVIRONMENTAL BIO-SYSTEMS, INC.
Innovative Solutions for a Better Environment
30028 Industrial Pkwy., S.W.
Suite C
Hayward, CA 94544

DATE: 12-10-91

DRAWN BY: SLS

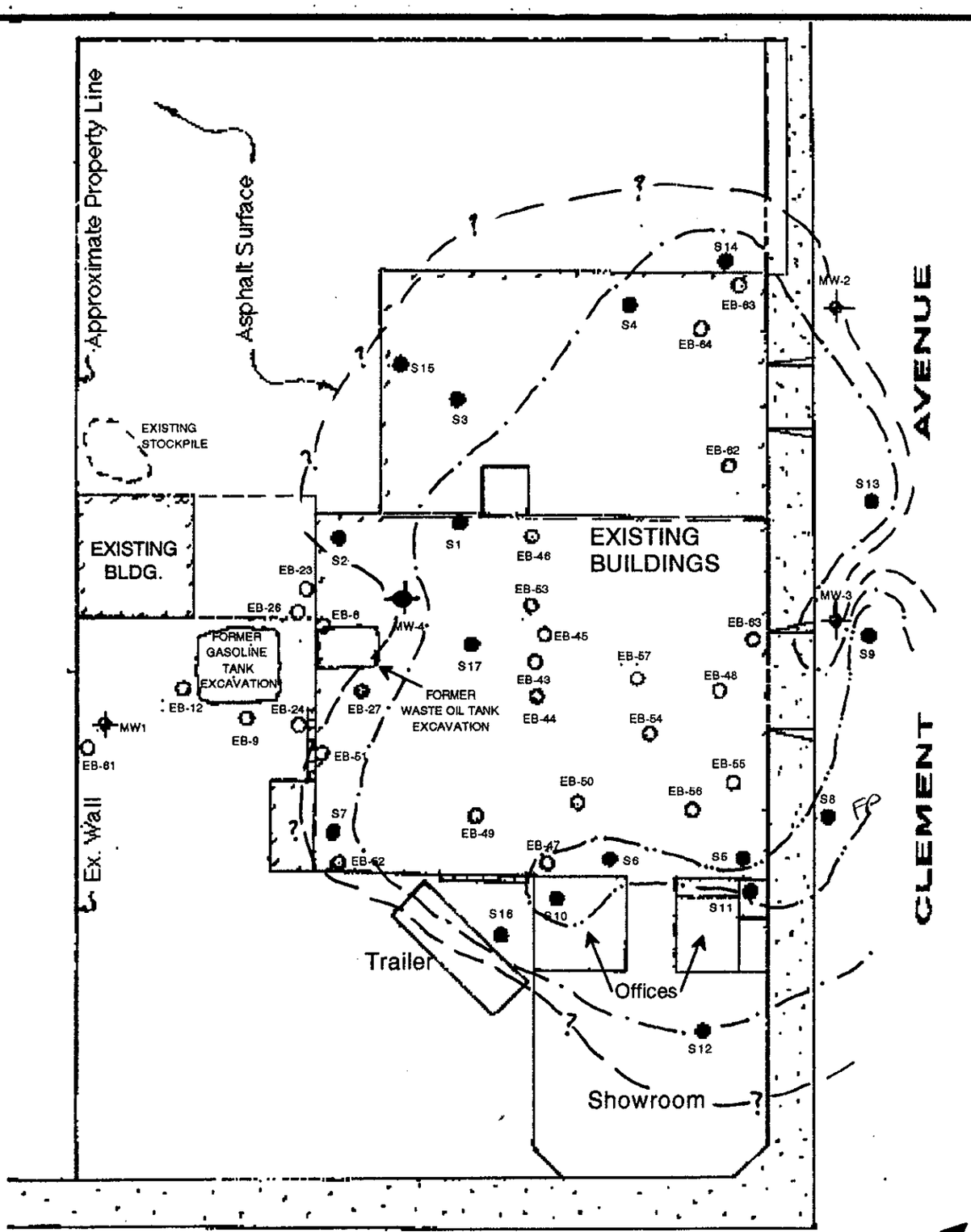
APPROV'D: TMB

SITE DIAGRAM A

Fig 5

KEIZER ESTATE
1825 PARK STREET
ALAMEDA, CALIFORNIA

FIGURE 2



Analytical Results

Samples from ACC Borings			Samples from Zaccor Borings		
Boring No.	TPH-g	Benzene	Boring No.	TPH-g	Benzene
S1	130	2.7	MW-1	ND	ND
S2	62	0.7	MW-2	ND	ND
S3	77	1.9	MW-3	ND	ND
S4	140	2.7			
S5	6,000	75.0			
S6	46,000	170			
S7	60	0.5			
S8	6,000,000	21,000			
S9	22,000	98			
S10	42,000	ND			
S11	35,000	790			
S12	100	0.8			
S13	580	8.0			
S14	180	1.4			
S15	62	ND			
S16	180	1.4			
S17	3,400	20			
MW-4	ND	ND			

* Results from sampling round 2/4/93
TPH-g = Total Petroleum Hydrocarbons as Gasoline
ND = Below detection limit

N

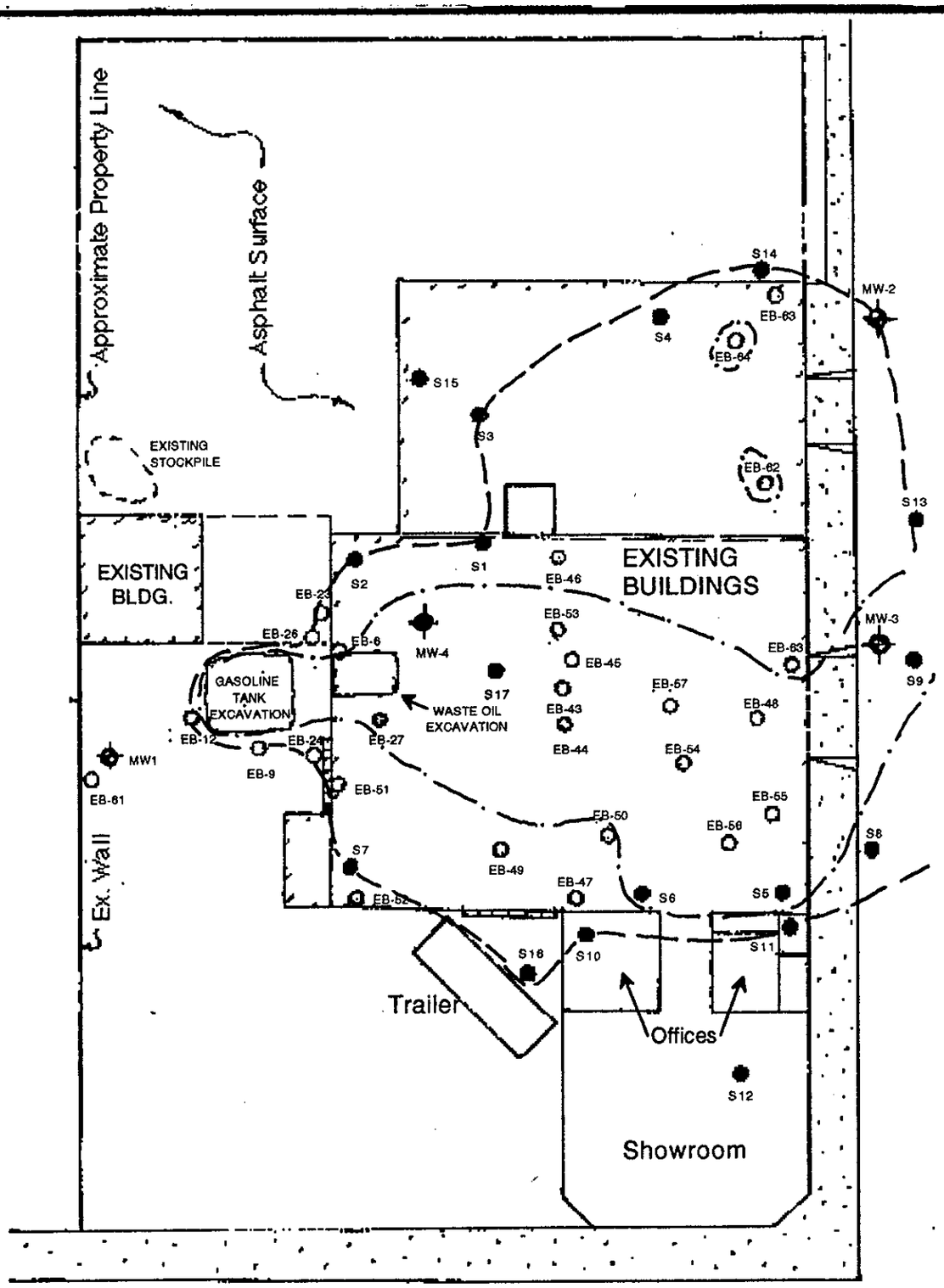
SCALE 1" = 30'

LEGEND

- EB-2 Approximate location of boring - Zaccor
- S1 Approximate location of boring - ACC
- MW-4 Approximate location of monitoring well - ACC
- MW-1 Approximate location of monitoring well - Zaccor
- Storm water grate
- Approximate location of non-detect line for TPH-g
- Approximate location of 100 ppb line(TPH-g)
- Approximate location of 10,000 ppb line for TPH-g

ACC Environmental Consultants, Inc. 1000 Atlantic Avenue, Suite 110 Alameda, California 94501	Total Petroleum Hydrocarbon as Gasoline and Benzene Concentrations in Groundwater (ppb)

Project No. 6089-1	Date: 4/28/93	Dn by: MAS	Figure No. 4 6



Analytical Results

Samples from ACC Borings			Samples from Zaccor Borings		
Boring No.	TPH-g	Benzene	Boring No.	TPH-g	Benzene
S1	ND	ND	EB-6	17	ND
S2	ND	ND	EB-9	ND	ND
S3	ND	ND	EB-12	ND	ND
S4	5.8	ND	EB-23	ND	ND
S5	580	ND	EB-24	ND	ND
S6	270	0.028	EB-26	ND	ND
S7	ND	ND	EB-27	1,900	ND
S8	39	0.053	EB-38	ND	ND
S9	120	ND	EB-39	ND	ND
S10	ND	ND	EB-47	ND	ND
S11	ND	ND	EB-52	ND	ND
S12	ND	ND	EB-55	ND	ND
S13	ND	ND	EB-61	ND	ND
S14	ND	ND	EB-62	97	ND
S15	ND	ND	MW-1	ND	ND
S16	1.1	ND	MW-2	ND	ND
S17	1,200 ~~1,000~~	0.32 ~~44~~	MW-3	250	0.003
MW-4	1,500	~~ND~~ 0.038			

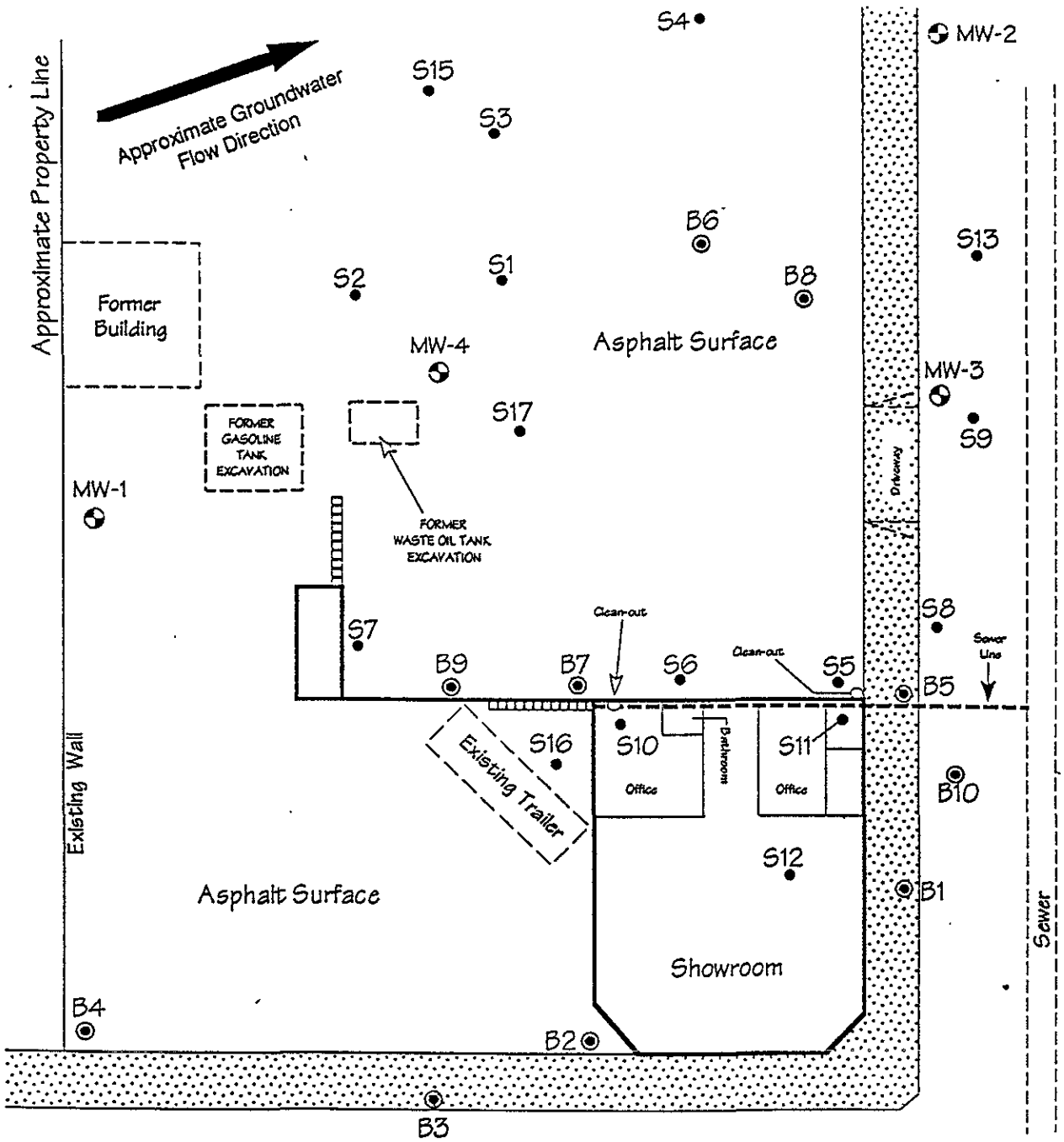
N

SCALE 1" = 30'

LEGEND

- EB-2 Approximate location of boring - Zaccor
- S1 Approximate location of boring - ACC
- MW-4 Approximate location of monitoring well - ACC
- MW-1 Approximate location of monitoring well - Zaccor
- Storm water grate
- Approximate location of non-detect line for TPH-g
- Approximate location of 100 ppm (TPH-g) or observed impact

ACC Environmental Consultants, Inc. 1000 Atlantic Avenue, Suite 110 Alameda, California 94501	Total Petroleum Hydrocarbons As Gasoline and Benzene Concentrations In Soil (ppm)
Project No. 6089-1 | Date: 4/28/93 | Dn by: MAS	Figure No. 7



Legend

MW-1 - Monitoring Well Location

S12 - Soil Boring Location: 4/16/93

B3 - Soil Boring Location: 2/7/96

- Storm water grate

Title: Site Map 1825 Park Street Alameda, California	
Figure Number: 8	Scale: 1" = 30'
Drawn By: JVC	Date: 02/22/96
Project Number: 95-6089-1.3	

ACC Environmental Consultants
7977 Capwell Drive, Suite 100
Oakland, California 94621
(510) 638-8400 Fax: (510) 638-8404

Composite samples were contained by driving brass tubes into the soil lying approximately twelve inches within the piles. Soil was packed into the tubes to eliminate the possibility of headspace. The sample containers were then covered with foil, capped, and taped in the manner described above. All samples were placed on ice in a cooler and transported under chain of custody protocol to Anametrix, Inc.

RESULTS

The certified analytical report documenting the findings of sample analyses has been attached to this report.

TABLE 1 - ANALYTICAL RESULTS FOR SOIL SAMPLES (In ppm*)

SAMPLE	TOG	TPH DIESEL	TPH GASOLINE	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES	TOTAL LEAD
S1	1,400	780	5,300	13	65	79	490	---
S2	2,100	300	1,900	8.6	18	16	81	---
S5	---	---	ND**	ND	ND	ND	ND	4.4
S6	---	---	ND	0.013	0.006	ND	0.006	2.6
SC9 A-B	---	180	---	---	---	---	---	---
SC10 A-B	---	880	---	---	---	---	---	---

* ppm = Parts per million.
** ND = Analyte not detected above laboratory detection limits.
Note: Detection limits: TOG - 30 ppm. TPH as diesel - 10 ppm. TPH as gasoline - 0.5 ppm. BTEX 0.005 ppm. Total Lead - 0.15 ppm.

Sample Analysis

At the direction of Gary Zaccor of Zaccor Corporation on January 11, 1991, samples #S3 and #S4 were analyzed for total oil and grease (TOG) using Environmental Protection Agency method 5520 E&F.

cont. Table 1 Results

The certified analytical report documenting the findings of TOG analyses on samples #S3 and #S4 has been attached to this report.

Sample #S3 contained TOG at a concentration of 400 ppm.

Sample #S4 contained TOG at a concentration of 330 ppm.

Conclusions and Recommendations

Analytical results for samples #S3 and #S4, collected from the western and eastern walls of tank pit A, indicate the presence of hydrocarbons in excess of State actions limits. The confirmation of contamination at these locations indicates the migration of contaminants into soils to the west and east of the former tank pit.

This information should be used to formulate a remedial plan to address the exploration and removal of soil contaminated above acceptable limits which remains in place around the former tank pit.

TABLE 1 - FIELD OBSERVATIONS OF SOIL FROM EXPLORATORY BOINGS
(Depths in Feet)

Exploratory Boring	Approximate Total Depth	Approximate Depth Interval of Observed Soil Discoloration & Odor
EB-1	5.5	4 - 5.5
EB-2	5.5	3 - 5.5
EB-3	5.5	3.5 - 5.5
EB-4	5.5	4 - 5.5
EB-5	5.5	4 - 5.5
EB-6	5.5	3.5 - 5.5
EB-7	5.5	4 - 5.5
EB-8	5.5	3 - 5.5
EB-9	5.5	none
EB-10	5.5	none
EB-11	5.5	none
EB-12	5.5	none
EB-13	5.5	none
EB-14	5.5	5 - 5.5
EB-15	5.5	3 - 5.5
EB-16	5.5	4.5 - 5.5
EB-17	5.5	none
EB-18	5.5	none
EB-19	6	5-.5 - 6
EB-20	6	5.5 - 6
EB-21	5.5	4 - 5.5
EB-22	6	6
EB-23	5.5	none
EB-24	5.5	none
EB-25	5.5	none
EB-26	5.5	none
EB-27	5.5	2 - 5.5
EB-28	5.5	2 - 5.5
EB-29	5.5	1 - 5.5
EB-30	5.5	3 - 5.5
EB-31	5.5	4 - 5.5
EB-32	5.5	5 - 5.5
EB-33	5.5	4 - 5.5
EB-34	5.5	1.5 - 5.5
EB-35	5.5	4 - 5.5

TABLE 3 - Continued

Exploratory Boring	Approximate Total Depth	Approximate Depth Interval of Observed Soil Discoloration and/or Odor
EB-36	5.5	1 - 5.5
EB-37	5.5	2.5 - 5.5
EB-38	5.5	1- 2.
EB-39	5.5	none
EB-40	5.5	none
EB-41	5.5	1.5 - 5.5
EB-42	5.5	5 - 5.5
EB-43	5.5	0.5 - 5.5
EB-44	5.5	1 - 5-.5
EB-45	5.5	2.5 - 5.5
EB-46	5.5	none
EB-47	5.5	none
EB-48	5.5	1 - 5.5
EB-49	5.5	none
EB-50	5.5	none
EB-51	5.5	none
EB-52	5.5	none
EB-53	5.5	none
EB-54	5.5	1 - 5.5
EB-55	5.5	2.5 - 5.5
EB-56	5.5	1.5 - 5.5
EB-57	5.5	2 - 5.5
EB-58	5.5	3.5 - 5.5
EB-59	5.5	none
EB-60	5.5	none
EB-61	5.5	none
EB-62	5.5	3 - 5.5
EB-63	5.5	none
EB-64	5.5	3 - 5.5

TABLE 4 - SAMPLES SELECTED FOR ANALYSIS

SAMPLE I.D.	SAMPLE DEPTH	TPH AS GASOLINE & BTEX	TPH AS DIESEL	TOTAL OIL & GREASE		EPA 8240	EPA 8270	METALS
EB-6	5.5	X*	X	X		X		X
EB-9	6.75	X	X					
EB-12	6.0	X	X					
EB-23	7.0	X	X	X				
EB-24	6.0	X	X	X				
EB-26	6.0	X	X					
EB-27	4.0	X*	X	X	X	X		X
EB-38	6.0	X*	X	X	X			
EB-39	6.0	X	X	X				
EB-47	4.5	X		X				
EB-52	4.5	X		X				
EB-55	3.0	X		X				
EB-61	5.0	X						
EB-62	3.0	X		X				

* Analysis for TPH as gasoline did not include BTEX distinction. Refer to results of EPA 8240 analysis for quantification of BTEX constituents.

TABLE 5 - ANALYTICAL RESULTS - TPH AS GASOLINE, TPH AS DIESEL, AND TOG (results in mg/Kg)

SAMPLE I.D.	SAMPLE DEPTH	TPH AS GASOLINE	TPH AS DIESEL	TOTAL OIL & GREASE
EB-6	5.5	17	*ND	ND
EB-9	6.75	ND	ND	
EB-12	6.0	ND	ND	
EB-23	7.0	ND	ND	ND
EB-24	6.0	ND	ND	70
EB-26	6.0	ND	ND	
EB-27	4.0	1,900	250	80
EB-38	6.0	ND	ND	ND
EB-39	6.0	ND	ND	ND
EB-47	4.5	ND	ND	ND
EB-52	4.5	ND	ND	ND
EB-55	3.0	ND	ND	ND
EB-61	5.0	ND	ND	ND
EB-62	3.0	97	ND	380

*ND - Analyte not detected using given laboratory method

TABLE 6 - ANALYTICAL RESULTS - BTEX (results in ug/kg)

SAMPLE I.D.	SAMPLE DEPTH	Benzene	Toluene	Ethylbenzene	Xylenes
EB-6	5.5	*ND	ND	ND	140
EB-9	6.75	ND	ND	ND	ND
EB-12	6.0	ND	ND	ND	ND
EB-23	7.0	ND	ND	ND	ND
EB-24	6.0	ND	ND	ND	ND
EB-26	6.0	ND	ND	ND	ND
EB-27	4.0	ND	17,000	23,000	160,000
EB-38	6.0	ND	ND	ND	ND
EB-39	6.0	ND	ND	ND	ND
EB-47	4.5	ND	ND	ND	ND
EB-52	4.5	ND	ND	ND	ND
EB-55	3.0	ND	ND	ND	ND
EB-61	5.0	ND	ND	ND	ND
EB-62	3.0	ND	ND	310	100

*ND - Analyte not detected using given laboratory method

TABLE 7 - ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS DETECTED USING EPA METHOD 8240, AND SEMI-VOLATILE ORGANIC COMPOUNDS DETECTED USING EPA METHOD 8270 (results in ug/Kg)

SAMPLE I.D.	SAMPLE DEPTH	EPA 8240		EPA 8270	
EB-6	5.5	Xylenes -	140	*NA	
EB-27	4.0	Toluene-	17,000	Naphthalene-	3,000
		Ethylbenzene-	23,000	2-Methylnaphthalene-	3,600
		Xylenes-	160,000		
EB-38	6.0	**ND		NA	

*N/A - Sample not analyzed for the listed compound(s)
**ND - Analyte not detected using given laboratory method

TABLE 8 - ANALYTICAL RESULTS - METALS (results in ug/Kg)

	EB-6 @ 5.5 Feet	EB-27 @ 4.0 Feet
ANTIMONY	—	*ND
ARSENIC	—	1.2
BERYLLIUM	—	ND
CADMIUM	ND	ND
CHROMIUM	41.0	55.4
COPPER	—	7.5
LEAD	ND	7.3
MERCURY	—	ND
NICKEL	30.8	38.2
SELENIUM	—	ND
THALLIUM	—	ND
ZINC	17.9	20.0

*ND - Analyte not detected using given laboratory method

TABLE 9 - RESULTS OF SOIL SAMPLE ANALYSES (Results in ug/kg)

Sample	TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Xylenes	TPH as Diesel	Total Oil & Grease
B1 5-5.5'	*ND	ND	ND	ND	ND	ND	ND
B2 5-5.5'	ND	ND	ND	ND	ND	ND	ND
B3 5-5.5'	250,000	330	3,700	4,000	24,000	ND	17,000

*ND - Analyte not detected by the stated method.
Note: Detection limits used - TPH as gasoline = 1,000 ug/kg. BTEX = 5.0 ug/kg.
TPH as Diesel = 1,000 ug/kg. TOG = 10,000 ug/kg.

TABLE 10 - RESULTS OF WATER SAMPLE ANALYSES (Results in ug/kg)

Sample	TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Xylenes	TPH as Diesel	Total Oil & Grease
MW-1	*ND	ND	ND	ND	ND	ND	4,000
MW-2	ND	ND	ND	ND	ND	ND	3,000
MW-3	ND	ND	ND	ND	ND	ND	1,000

*ND - Analyte not detected by the stated method.
Note: Detection limits used - TPH as gasoline = 50 ug/kg. BTEX = 0.5 ug/kg.
TPH as Diesel = 50 ug/kg. TOG = 500 ug/kg.

TABLE # 11

Analytical Results - Soil

Sample Number	Depth (feet)	TPH-g (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	O & G (ppm)
S1-5	5	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<1.0
S2-5	5	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<1.0
S3-5	5	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	73
S4-5	5	5.8	<0.0005	<0.0005	<0.0005	<0.0005	<1.0
S5-5	5	580	<0.0005	3.7	2.8	13	<1.0
S6-4-5	4-5	270	0.028	0.46	1.8	8.0	<1.0
S7-5	5	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<1.0
S8-5	5	39	0.053	0.55	0.22	0.92	<1.0
S9-5	5	120	<0.0005	0.068	0.48	1.8	56
S10-5	5	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<1.0
S11-5	5	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<1.0
S12-5	5	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<1.0
S13-5	5	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<1.0
S14-5	5	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<1.0
S15-5	5	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	<1.0
S16-5	5	1.1	<0.0005	<0.0005	<0.0005	0.012	<1.0
S17-5	5	~~1200~~1000	~~0.22~~ 0.44	~~0.44~~ 0.58	6.4	29	160
MW-4-5	5	1500	<0.0005	0.31	6.1	33	10000

Notes: ppm = parts per million; O & G = Total Oil and Grease

In addition to the above analysis, sample MW-4-5 indicated 230 parts per billion (ppb) 1,1,2-Trichloroethane, 52 ppb 1,1,2,2-Tetrachloroethane, 320 ppb 4-Methyl-2-pentanone, 7.3 ppb Bromodichloromethane, 57 ppb Styrene, and 5.3 ppb Trans-1,3-Dichloropropene. These constituents were listed in the Merck index as being solvents primarily used for metal and rubber, or as paint thinner.

Some metals were reported in the soil sample from boring MW-4. Laboratory results for metals were compared to the Department of Health Services Criteria for Inorganic Constituents of Hazardous Wastes, June 1989, regulated Total Threshold Limit Concentrations (TTLC) Limits. Soils containing metals in concentrations less that TTLC and less than ten times the Soluble Limit Threshold Concentration (STLC) are not required to be tested for leachibility (per Juliet Shin, Alameda County Health Care Services Agency). Regulated STLC and TTLC levels as well as detected concentrations in the soil from boring MW-4 are illustrated in Table 3.